SEQUENCE LISTING

<110> Advisys, Inc.

<120> Codon optimized Synthetic Plasmid

<130> 108328.00146

<160> 43

<170> PatentIn version 3.3

<210> 1
<211> 3534
<212> DNA
<213> artificial sequence

<220>
<223> Plasmid vector having an analog GHRH sequence.

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gtgaggaatg gtggggagtt atttttagag cggtgaggaa ggtgggcagg cagcaggtgt 180

tggcgctcta aaaataactc ccgggagtta tttttagagc ggaggaatgg tggacaccca 240

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cattcctggg ggccgggcgg tgctcccgcc cgcctcgata aaaggctccg gggccggcgg 360

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<210> 2
<211> 2739
<212> DNA
<213> artificial sequence

<220>
<223> Optimized vector having an analog GHRH sequence.

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gttggcgctc taaaaataac tcccgggagt tatttttaga gcggaggaat ggtggacacc 180

caaatatggc gacggttcct cacccgtcgc catatttggg tgtccgccct cggccggggc 240

cgcattcctg ggggccgggc ggtgctcccg cccgcctcga taaaaggctc cggggccggc 300

ggcggcccac gagctacccg gaggagcggg aggcgccaag cggatcccaa ggcccaactc 360

cccgaaccac tcagggtcct gtggacagct cacctagctg ccatggtgct ctgggtgttc 420

ttctttgtga tcctcaccct cagcaacagc tcccactgct ccccacctcc ccctttgacc 480

ctcaggatgc ggcggtatgc agatgccatc ttcaccaaca gctaccggaa ggtgctgggc 540

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tttttccata ggctccgccc ccctgacgag catcacaaaa atcgacgctc aagtcagagg 1140

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gatcgtgtaa tacgactcac tatagggcga attggagct 2739

<210> 3
<211> 795
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence for the antibiotic resistance gene kanamycin.

<400> 3
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ggctatgact gggcacaaca gacaatcggc tgctctgatg ccgccgtgtt ccggctgtca 120

gcgcaggggc gcccggttct ttttgtcaag accgacctgt ccggtgccct gaatgaactg 180

caggacgagg cagcgcggct atcgtggctg gccacgacgg gcgttccttg cgcagctgtg 240

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gatctcctgt catctcacct tgctcctgcc gagaaagtat ccatcatggc tgatgcaatg 360

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gagcatcagg ggctcgcgcc agccgaactg ttcgccaggc tcaaggcgcg catgcccgac 540

ggcgaggatc tcgtcgtgac tcatggcgat gcctgcttgc cgaatatcat ggtggaaaat 600

ggccgctttt ctggattcat cgactgtggc cggctgggtg tggcggaccg ctatcaggac 660

atagcgttgg ctacccgtga tattgctgaa gagcttggcg gcgaatgggc tgaccgcttc 720

ctcgtgcttt acggtatcgc cgctcccgat tcgcagcgca tcgccttcta tcgccttctt 780

gacgagttct tctga 795

<210> 4
<211> 219
<212> DNA
<213> artificial sequence

<220>
<223> Sequence for an analog porcine GHRH sequence.

<400> 4
atggtgctct gggtgttctt ctttgtgatc ctcaccctca gcaacagctc ccactgctcc 60

ccacctcccc ctttgaccct caggatgcgg cggcacgtag atgccatctt caccaacagc 120

taccggaagg tgctggccca gctgtccgcc cgcaagctgc tccaggacat cctgaacagg 180

cagcagggag agaggaacca agagcaagga gcataatga 219

<210> 5
<211> 246
<212> DNA
<213> artificial sequence

<220>
<223> Sequence for an analog mouse GHRH sequence.

<400> 5
gccatggtgc tctgggtgct ctttgtgatc ctcatcctca ccagcggcag ccactgcagc 60

ctgcctccca gccctccctt caggatgcag aggcacgtgg acgccatctt caccaccaac 120

tacaggaagc tgctgagcca gctgtacgcc aggaaggtga tccaggacat catgaacaag 180

cagggcgaga ggatccagga gcagagggcc aggctgagct gataagcttg cgatgagttc 240

ttctaa 246

<210> 6
<211> 234
<212> DNA
<213> artificial sequence

<220>
<223> Sequence for an analog rat GHRH sequence.

<400> 6
gccatggccc tgtgggtgtt cttcgtgctg ctgaccctga ccagcggaag ccactgcagc 60

ctgcctccca gccctccctt cagggtgcgc cggcacgccg acgccatctt caccagcagc 120

tacaggagga tcctgggcca gctgtacgct aggaagctcc tgcacgagat catgaacagg 180

cagcagggcg agaggaacca ggagcagagg agcaggttca actgataagc ttgc 234

<210> 7
<211> 225
<212> DNA
<213> artificial sequence

<220>
<223> Sequence for an analog bovine GHRH sequence.

<400> 7
gccatggtgc tgtgggtgtt cttcctggtg accctgaccc tgagcagcgg ctcccacggc 60

tccctgccct cccagcctct gcgcatccct cgctacgccg acgccatctt caccaacagc 120

taccgcaagg tgctcggcca gctcagcgcc cgcaagctcc tgcaggacat catgaaccgg 180

cagcagggcg agcgcaacca ggagcaggga gcctgataag cttgc 225

<210> 8
<211> 225
<212> DNA
<213> artificial sequence

<220>
<223> Sequence for an analog ovine GHRH sequence.

<400> 8
gccatggtgc tgtgggtgtt cttcctggtg accctgaccc tgagcagcgg aagccacggc 60

agcctgccca gccagcccct gaggatccct aggtacgccg acgccatctt caccaacagc 120

tacaggaaga tcctgggcca gctgagcgct aggaagctcc tgcaggacat catgaacagg 180

cagcagggcg agaggaacca ggagcagggc gcctgataag cttgc 225

<210> 9
<211> 246
<212> DNA
<213> artificial sequence

<220>
<223> Sequence for an analog chicken GHRH sequence.

<400> 9
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ctgcctccca gccctccctt caggatgcag aggcacgtgg acgccatctt caccaccaac 120

tacaggaagc tgctgagcca gctgtacgcc aggaaggtga tccaggacat catgaacaag 180

cagggcgaga ggatccagga gcagagggcc aggctgagct gataagcttg cgatgagttc 240

ttctaa 246

<210> 10
<211> 190
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence of human growth hormone poly A tail.

<400> 10
gggtggcatc cctgtgaccc ctccccagtg cctctcctgg ccctggaagt tgccactcca 60

gtgcccacca gccttgtcct aataaaatta agttgcatca ttttgtctga ctaggtgtcc 120

ttctataata ttatggggtg gaggggggtg gtatggagca aggggcaagt tgggaagaca 180

acctgtaggg 190

<210> 11
<211> 55
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence of human growth hormone 5' untranslated

region

<400> 11
caaggcccaa ctccccgaac cactcagggt cctgtggaca gctcacctag ctgcc 55

<210> 12
<211> 782
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence of a plasmid pUC-18 origin of replicaiton

<400> 12
tcttccgctt cctcgctcac tgactcgctg cgctcggtcg ttcggctgcg gcgagcggta 60

tcagctcact caaaggcggt aatacggtta tccacagaat caggggataa cgcaggaaag 120

aacatgtgag caaaaggcca gcaaaaggcc aggaaccgta aaaaggccgc gttgctggcg 180

tttttccata ggctccgccc ccctgacgag catcacaaaa atcgacgctc aagtcagagg 240

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tccaagctgg gctgtgtgca cgaaccccc gttcagcccg accgctgcgc cttatccggt 480

aactatcgtc ttgagtccaa cccggtaaga cacgacttat cgccactggc agcagccact 540

ggtaacagga ttagcagagc gaggtatgta ggcggtgcta cagagttctt gaagtggtgg 600

cctaactacg gctacactag aaggacagta tttggtatct gcgctctgct gaagccagtt 660

accttcggaa aaagagttgg tagctcttga tccggcaaac aaaccaccgc tggtagcggt 720

ggtttttttg tttgcaagca gcagattacg cgcagaaaaa aaggatctca agaagatcct 780

tt 782

<210> 13
<211> 5
<212> DNA
<213> artificial sequence

<220>
<223> This is a NEO ribosomal binding site

<400> 13
tcctc 5

<210> 14
<211> 29
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence of a prokaryotic PNEO promoter.

<400> 14
accttaccag agggcgcccc agctggcaa 29

<210> 15
<211> 323
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence of a eukaryotic promoter c5-12.

<400> 15
cggccgtccg ccctcggcac catcctcacg acacccaaat atggcgacgg gtgaggaatg 60

gtggggagtt atttttagag cggtgaggaa ggtgggcagg cagcaggtgt tggcgctcta 120

aaaataactc ccgggagtta tttttagagc ggaggaatgg tggacaccca aatatggcga 180

cggttcctca cccgtcgcca tatttgggtg tccgccctcg gccggggccg cattcctggg 240

ggccgggcgg tgctcccgcc cgcctcgata aaaggctccg gggccggcgg cggcccacga 300

gctacccgga ggagcgggag gcg 323

<210> 16
<211> 210
<212> DNA
<213> artificial sequence

<220>
<223> Optimized nucleic acid sequence of a human growth hormone poly A tail

<400> 16
ttatcggggt ggcatccctg tgacccctcc ccagtgcctc tcctggccct ggaagttgcc 60

actccagtgc ccaccagcct tgtcctaata aaattaagtt gcatcatttt gtctgactag 120

gtgtcccttct ataatattat ggggtggagg ggggtggtat ggagcaaggg gcaagttggg 180

aagacaacct gtagggctcg agggggggcc 210

<210> 17
<211> 2722
<212> DNA
<213> artificial sequence

<220>

<223> Plasmid vector having a codon optimized mouse GHRH sequence

<400> 17

ccaccgcggt ggcggccgtc cgccctcggc accatcctca cgacacccaa atatggcgac 60

gggtgaggaa tggtggggag ttatttttag agcggtgagg aaggtgggca ggcagcaggt 120

gttggcgctc taaaaataac tcccgggagt tatttttaga gcggaggaat ggtggacacc 180

caaatatggc gacggttcct cacccgtcgc catatttggg tgtccgccct cggccggggc 240

cgcattcctg ggggccgggc ggtgctcccg cccgcctcga taaaaggctc cggggccggc 300

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cccgaaccac tcagggtcct gtggacagct cacctagctg ccatggtgct ctgggtgctc 420

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aggatgcaga ggcacgtgga cgccatcttc accaccaact acaggaagct gctgagccag 540

ctgtacgcca ggaaggtgat ccaggacatc atgaacaagc agggcgagag gatccaggag 600

cagagggcca ggctgagctg ataagcttat cggggtggca tccctgtgac ccctccccag 660

tgcctctcct ggccctggaa gttgccactc cagtgcccac cagccttgtc ctaataaaat 720

taagttgcat cattttgtct gactaggtgt ccttctataa tattatgggg tggaggggg 780

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cctgccgctt accggatacc tgtccgcctt tctcccttcg ggaagcgtgg cgctttctca 1260

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gcagcagatt acgcgcagaa aaaaaggatc tcaagaagat cctttgatct tttctacggg 1680

gtctgacgct cagctagcgc tcagaagaac tcgtcaagaa ggcgatagaa ggcgatgcgc 1740

tgcgaatcgg gagcggcgat accgtaaagc acgaggaagc ggtcagccca ttcgccgcca 1800

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agccggccac agtcgatgaa tccagaaaag cggccatttt ccaccatgat attcggcaag 1920

caggcatcgc catgagtcac gacgagatcc tcgccgtcgg gcatgcgcgc cttgagcctg 1980

gcgaacagtt cggctggcgc gagcccctga tgctcttcgt ccagatcatc ctgatcgaca 2040

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agccagtccc ttcccgcttc agtgacaacg tcgagcacag ctgcgcaagg aacgcccgtc 2280

gtggccagcc acgatagccg cgctgcctcg tcctgcagtt cattcagggc accggacagg 2340

tcggtcttga caaaaagaac cgggcgcccc tgcgctgaca gccggaacac ggcggcatca 2400

gagcagccga ttgtctgttg tgcccagtca tagccgaata gcctctccac ccaagcggcc 2460

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cactataggg cgaattggag ct 2722

<210> 18
<211> 2725
<212> DNA
<213> artificial sequence

<220>
<223> Plasmid vector having a codon optimized rat GHRH sequence

<400> 18
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gttggcgctc taaaaataac tcccgggagt tatttttaga gcggaggaat ggtggacacc 180

caaatatggc gacggttcct cacccgtcgc catatttggg tgtccgccct cggccggggc 240

cgcattcctg ggggccgggc ggtgctcccg cccgcctcga taaaaggctc cggggccggc 300

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gtcgtggcca gccacgatag ccgcgctgcc tcgtcctgca gttcattcag ggcaccggac 2340

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gccggagaac ctgcgtgcaa tccatcttgt tcaatcatgc gaaacgatcc tcatcctgtc 2520

tcttgatcag atcttgatcc cctgcgccat cagatccttg gcggcaagaa agccatccag 2580

tttactttgc agggcttccc aaccttacca gagggcgccc cagctggcaa ttccggttcg 2640

cttgctgtcc ataaaaccgc ccagtctagc aactgttggg aagggcgatc gtgtaatacg 2700

actcactata gggcgaattg gagct 2725

<210> 19
<211> 2716
<212> DNA
<213> artificial sequence

<220>
<223> Plasmid vector having a codon optimized bovine GHRH sequence

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gttggcgctc taaaaataac tcccgggagt tatttttaga gcggaggaat ggtggacacc 180

caaatatggc gacggttcct cacccgtcgc catatttggg tgtccgccct cggccggggc 240

cgcattcctg ggggccgggc ggtgctcccg cccgcctcga taaaaggctc cggggccggc 300

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gagcagggag cctgataagc ttatcggggt ggcatccctg tgacccctcc ccagtgcctc 660

tcctggccct ggaagttgcc actccagtgc ccaccagcct tgtcctaata aaattaagtt 720

gcatcatttt gtctgactag gtgtccttct ataatattat ggggtggagg ggggtggtat 780

ggagcaaggg gcaagttggg aagacaacct gtagggctcg agggggggcc cggtaccagc 840

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tgacgagcat cacaaaaatc gacgctcaag tcagaggtgg cgaaacccga caggactata 1140

aagataccag gcgtttcccc ctggaagctc cctcgtgcgc tctcctgttc cgaccctgcc 1200

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acccccccgtt cagcccgacc gctgcgcctt atccggtaac tatcgtcttg agtccaaccc 1380

ggtaagacac gacttatcgc cactggcagc agccactggt aacaggatta gcagagcgag 1440

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aacagtattt ggtatctgcg ctctgctgaa gccagttacc ttcggaaaaa gagttggtag 1560

ctcttgatcc ggcaaacaaa ccaccgctgg tagcggtggt ttttttgttt gcaagcagca 1620

gattacgcgc agaaaaaaag gatctcaaga agatcctttg atcttttcta cggggtctga 1680

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agccacgata gccgcgctgc ctcgtcctgc agttcattca gggcaccgga caggtcggtc 2340

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ccgattgtct gttgtgccca gtcatagccg aatagcctct ccacccaagc ggccggagaa 2460

cctgcgtgca atccatcttg ttcaatcatg cgaaacgatc ctcatcctgt ctcttgatca 2520

gatcttgatc ccctgcgcca tcagatcctt ggcggcaaga aagccatcca gtttactttg 2580

cagggcttcc caaccttacc agagggcgcc ccagctggca attccggttc gcttgctgtc 2640

cataaaaccg cccagtctag caactgttgg gaagggcgat cgtgtaatac gactcactat 2700

agggcgaatt ggagct 2716

<210> 20
<211> 2716
<212> DNA

<213> artificial sequence

<220>
<223> Plasmid vector having a codon optimized ovine GHRH sequence

<400> 20
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gttggcgctc taaaaataac tcccgggagt tatttttaga gcggaggaat ggtggacacc 180

caaatatggc gacggttcct cacccgtcgc catatttggg tgtccgccct cggccggggc 240

cgcattcctg ggggccgggc ggtgctcccg cccgcctcga taaaaggctc cggggccggc 300

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gagcagggcg cctgataagc ttatcggggt ggcatccctg tgacccctcc ccagtgcctc 660

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aacagtattt ggtatctgcg ctctgctgaa gccagttacc ttcggaaaaa gagttggtag 1560

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cagggcttcc caaccttacc agagggcgcc ccagctggca attccggttc gcttgctgtc 2640

cataaaaccg cccagtctag caactgttgg gaagggcgat cgtgtaatac gactcactat 2700

agggcgaatt ggagct 2716

<210> 21
<211> 2725
<212> DNA
<213> artificial sequence

<220>
<223> Plasmid vector having a codon optimized chicken GHRH sequence

<400> 21
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actcactata gggcgaattg gagct 2725

<210> 22
<211> 264
<212> PRT
<213> artificial sequence

<220>
<223> Amino acid sequence for a coding sequence having an antibiotic resistance gene kanamycin

<400> 22

Met Ile Glu Gln Asp Gly Leu His Ala Gly Ser Pro Ala Ala Trp Val
1 5 10 15

Glu Arg Leu Phe Gly Tyr Asp Trp Ala Gln Gln Thr Ile Gly Cys Ser
20 25 30

Asp Ala Ala Val Phe Arg Leu Ser Ala Gln Gly Arg Pro Val Leu Phe
35 40 45

Val Lys Thr Asp Leu Ser Gly Ala Leu Asn Glu Leu Gln Asp Glu Ala
50 55 60

```
Ala Arg Leu Ser Trp Leu Ala Thr Thr Gly Val Pro Cys Ala Ala Val
65                  70                  75                  80

Leu Asp Val Val Thr Glu Ala Gly Arg Asp Trp Leu Leu Leu Gly Glu
                85                  90                  95

Val Pro Gly Gln Asp Leu Leu Ser Ser His Leu Ala Pro Ala Glu Lys
            100                 105                 110

Val Ser Ile Met Ala Asp Ala Met Arg Arg Leu His Thr Leu Asp Pro
        115                 120                 125

Ala Thr Cys Pro Phe Asp His Gln Ala Lys His Arg Ile Glu Arg Ala
    130                 135                 140

Arg Thr Arg Met Glu Ala Gly Leu Val Asp Gln Asp Asp Leu Asp Glu
145                 150                 155                 160

Glu His Gln Gly Leu Ala Pro Ala Glu Leu Phe Ala Arg Leu Lys Ala
                165                 170                 175

Arg Met Pro Asp Gly Glu Asp Leu Val Val Thr His Gly Asp Ala Cys
            180                 185                 190

Leu Pro Asn Ile Met Val Glu Asn Gly Arg Phe Ser Gly Phe Ile Asp
        195                 200                 205

Cys Gly Arg Leu Gly Val Ala Asp Arg Tyr Gln Asp Ile Ala Leu Ala
    210                 215                 220
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Thr Arg Asp Ile Ala Glu Glu Leu Gly Gly Glu Trp Ala Asp Arg Phe
225 230 235 240

Leu Val Leu Tyr Gly Ile Ala Ala Pro Asp Ser Gln Arg Ile Ala Phe
245 250 255

Tyr Arg Leu Leu Asp Glu Phe Phe
260

<210> 23
<211> 75
<212> PRT
<213> artificial sequence

<220>
<223> Amino acid sequence for an analog mouse GHRH sequence

<400> 23

Ala Met Val Leu Trp Val Leu Phe Val Ile Leu Ile Leu Thr Ser Gly
1 5 10 15

Ser His Cys Ser Leu Pro Pro Ser Pro Pro Phe Arg Met Gln Arg His
20 25 30

Val Asp Ala Ile Phe Thr Thr Asn Tyr Arg Lys Leu Leu Ser Gln Leu
35 40 45

Tyr Ala Arg Lys Val Ile Gln Asp Ile Met Asn Lys Gln Gly Glu Arg
50 55 60

Ile Gln Glu Gln Arg Ala Arg Leu Ser Ala Cys
65 70 75

<210> 24
<211> 231
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence for an original mouse GHRH sequence

<400> 24
gccatggtgc tctgggtgct ctttgtgatc ctcatcctca ccagcggcag ccactgcagc 60

ctgcctccca gccctccctt caggatgcag aggcacgtgg acgccatctt caccaccaac 120

tacaggaagc tgctgagcca gctgtacgcc aggaaggtga tccaggacat catgaacaag 180

cagggcgaga ggatccagga gcagagggcc aggctgagct gataagcttg c 231

<210> 25
<211> 73
<212> PRT
<213> artificial sequence

<220>
<223> Amino acid sequence for an original mouse GHRH sequence

<400> 25

Met Val Leu Trp Val Leu Phe Val Ile Leu Ile Leu Thr Ser Gly Ser
1 5 10 15

His Cys Ser Leu Pro Pro Ser Pro Pro Phe Arg Met Gln Arg His Val
20 25 30

Asp Ala Ile Phe Thr Thr Asn Tyr Arg Lys Leu Leu Ser Gln Leu Tyr
35 40 45

Ala Arg Lys Val Ile Gln Asp Ile Met Asn Lys Gln Gly Glu Arg Ile
50 55 60

Gln Glu Gln Arg Ala Arg Leu Ser Ala
65 70

<210> 26
<211> 76
<212> PRT
<213> artificial sequence

<220>
<223> Amino acid sequence for an analog rat GHRH sequence

<400> 26

Ala Met Ala Leu Trp Val Phe Phe Val Leu Leu Thr Leu Thr Ser Gly
1 5 10 15

Ser His Cys Ser Leu Pro Pro Ser Pro Pro Phe Arg Val Arg Arg His
20 25 30

Ala Asp Ala Ile Phe Thr Ser Ser Tyr Arg Arg Ile Leu Gly Gln Leu
35 40 45

Tyr Ala Arg Lys Leu Leu His Glu Ile Met Asn Arg Gln Gln Gly Glu
50 55 60

Arg Asn Gln Glu Gln Arg Ser Arg Phe Asn Ala Cys
65 70 75

<210> 27
<211> 234
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence for an original rat GHRH sequence

<400> 27
gccatggcac tctgggtgtt ctttgtgctc ctcaccctca ccagtggctc ccactgctca 60

ctgccccccct cacctccctt cagggtgcgg cggcacgccg acgccatctt caccagcagc 120

tacaggagaa tcctgggcca gctgtacgcc aggaaactgc tgcacgagat catgaacagg 180

cagcagggcg agaggaacca ggagcagagg tccaggttca actgataagc ttgc 234

<210> 28
<211> 74
<212> PRT
<213> artificial sequence

<220>
<223> Amino acid sequence for an original rat GHRH sequence

<400> 28

Met Ala Leu Trp Val Phe Phe Val Leu Leu Thr Leu Thr Ser Gly Ser
1 5 10 15

His Cys Ser Leu Pro Pro Ser Pro Pro Phe Arg Val Arg Arg His Ala
20 25 30

Asp Ala Ile Phe Thr Ser Ser Tyr Arg Arg Ile Leu Gly Gln Leu Tyr
35 40 45

Ala Arg Lys Leu Leu His Glu Ile Met Asn Arg Gln Gln Gly Glu Arg
50 55 60

Asn Gln Glu Gln Arg Ser Arg Phe Asn Ala
65 70

<210> 29
<211> 73
<212> PRT
<213> artificial sequence

<220>
<223> Amino acid sequence for an analog bovine GHRH sequence

<400> 29

Ala Met Val Leu Trp Val Phe Phe Leu Val Thr Leu Thr Leu Ser Ser
1 5 10 15

Gly Ser His Gly Ser Leu Pro Ser Gln Pro Leu Arg Ile Pro Arg Tyr
20 25 30

Ala Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Gly Gln Leu
35 40 45

Ser Ala Arg Lys Leu Leu Gln Asp Ile Met Asn Arg Gln Gln Gly Glu
50 55 60

Arg Asn Gln Glu Gln Gly Ala Ala Cys
65 70

<210> 30
<211> 222
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence for an original bovine GHRH sequence

<400> 30
ccatggtgct ctgggtgttc ttcctcgtga ccctcaccct cagcagcggc tcccacggtt 60

ccctgccttc ccagcctctc aggattccac ggtacgccga cgccatcttc accaacagct 120

accggaaggt gctgggccag ctgtccgccc ggaagctgct gcaggacatc atgaacaggc 180

agcagggcga gagaaaccag gagcagggcg cctgataagc tt 222

<210> 31
<211> 71
<212> PRT
<213> artificial sequence

<220>
<223> Amino acid sequence for an original bovine GHRH sequence

<400> 31

Met Val Leu Trp Val Phe Phe Leu Val Thr Leu Thr Leu Ser Ser Gly
1 5 10 15

Ser His Gly Ser Leu Pro Ser Gln Pro Leu Arg Ile Pro Arg Tyr Ala
20 25 30

Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Gly Gln Leu Ser
35 40 45

Ala Arg Lys Leu Leu Gln Asp Ile Met Asn Arg Gln Gln Gly Glu Arg
50 55 60

Asn Gln Glu Gln Gly Ala Ala
65 70

<210> 32
<211> 73
<212> PRT
<213> artificial sequence

<220>
<223> Amino acid sequence for an analog ovine GHRH sequence

<400> 32

Ala Met Val Leu Trp Val Phe Phe Leu Val Thr Leu Thr Leu Ser Ser
1 5 10 15

Gly Ser His Gly Ser Leu Pro Ser Gln Pro Leu Arg Ile Pro Arg Tyr
20 25 30

Ala Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Ile Leu Gly Gln Leu
35 40 45

Ser Ala Arg Lys Leu Leu Gln Asp Ile Met Asn Arg Gln Gln Gly Glu
50 55 60

Arg Asn Gln Glu Gln Gly Ala Ala Cys
65 70

<210> 33
<211> 222
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence for an original ovine GHRH sequence

<400> 33
ccatggtgct ctgggtgttc ttcctcgtga ccctcaccct cagcagcggc tcccacggtt 60

ccctgccttc ccagcctctc aggattccac ggtacgccga cgccatcttc accaacagct 120

accggaagat cctgggccag ctgtccgccc ggaagctgct gcaggacatc atgaacaggc 180

agcagggcga gagaaaccag gagcagggcg cctgataagc tt 222

<210> 34
<211> 71
<212> PRT
<213> artificial sequence

<220>
<223> Amino acid sequence for an original ovine GHRH sequence

<400> 34

Met Val Leu Trp Val Phe Phe Leu Val Thr Leu Thr Leu Ser Ser Gly
1 5 10 15

Ser His Gly Ser Leu Pro Ser Gln Pro Leu Arg Ile Pro Arg Tyr Ala
20 25 30

Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Ile Leu Gly Gln Leu Ser
35 40 45

Ala Arg Lys Leu Leu Gln Asp Ile Met Asn Arg Gln Gln Gly Glu Arg
50 55 60

Asn Gln Glu Gln Gly Ala Ala
65 70

<210> 35
<211> 234
<212> DNA
<213> artificial sequence

<220>
<223> Nucleic acid sequence for an analog chicken GHRH sequence

<400> 35
gccatggccc tgtgggtgtt ctttgtgctg ctgaccctga cctccggaag ccactgcagc 60

ctgccaccca gcccaccctt ccgcgtcagg cgccacgccg acggcatctt cagcaaggcc 120

taccgcaagc tcctgggcca gctgagcgca cgcaactacc tgcacagcct gatggccaag 180

cgcgtgggca gcggactggg agacgaggcc gagcccctga gctgataagc ttgc 234

<210> 36
<211> 76
<212> PRT
<213> artificial sequence

<220>
<223> Amino acid sequence for an analog chicken GHRH sequence

<400> 36

Ala Met Ala Leu Trp Val Phe Phe Val Leu Leu Thr Leu Thr Ser Gly
1 5 10 15

Ser His Cys Ser Leu Pro Pro Ser Pro Pro Phe Arg Val Arg Arg His
20 25 30

Ala Asp Gly Ile Phe Ser Lys Ala Tyr Arg Lys Leu Leu Gly Gln Leu
35 40 45

Ser Ala Arg Asn Tyr Leu His Ser Leu Met Ala Lys Arg Val Gly Ser
50 55 60

Gly Leu Gly Asp Glu Ala Glu Pro Leu Ser Ala Cys
65 70 75

<210> 37
<211> 231
<212> DNA
<213> artificial sequence

<220>

<223> Nucleic acid sequence for an original chicken GHRH sequence

<400> 37

ccatggcact ctgggtgttc tttgtgctcc tcaccctcac cagtggctcc cactgctcac 60

tgcccccctc acctcccttc agggtgcggc ggcacgccga tgggatcttc agcaaagcct 120

acaggaaact cctgggccag ctgtccgcaa gaaattacct gcactccctg atggccaagc 180

gggtcggcag cggcctgggg gacgaggcgg aaccgctcag ctgataagct t 231

<210> 38

<211> 74

<212> PRT

<213> artificial sequence

<220>

<223> Amino acid sequence for an original chicken GHRH sequence

<400> 38

Met Ala Leu Trp Val Phe Phe Val Leu Leu Thr Leu Thr Ser Gly Ser
1 5 10 15

His Cys Ser Leu Pro Pro Ser Pro Pro Phe Arg Val Arg Arg His Ala
20 25 30

Asp Gly Ile Phe Ser Lys Ala Tyr Arg Lys Leu Leu Gly Gln Leu Ser
35 40 45

Ala Arg Asn Tyr Leu His Ser Leu Met Ala Lys Arg Val Gly Ser Gly
50 55 60

Leu Gly Asp Glu Ala Glu Pro Leu Ser Ala
65 70

<210> 39
<211> 40
<212> PRT
<213> artificial sequence

<220>
<223> Amino acid sequence for GHRH sequence wt-GHRH

<400> 39

Tyr Ala Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Gly Gln
1 5 10 15

Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Met Ser Arg Gln Gln Gly
20 25 30

Glu Arg Asn Gln Glu Gln Gly Ala
35 40

<210> 40
<211> 40
<212> PRT
<213> artificial sequence

<220>
<223> Amino acid sequence for GHRH sequence HV-GHRH

<400> 40

His Val Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Ala Gln
1 5 10 15

Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Leu Asn Arg Gln Gln Gly
20 25 30

Glu Arg Asn Gln Glu Gln Gly Ala
35 40

<210> 41
<211> 40
<212> PRT
<213> artificial sequence

<220>
<223> Amino acid sequence for GHRH sequence TI-GHRH

<400> 41

Tyr Ile Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Ala Gln
1 5 10 15

Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Leu Asn Arg Gln Gln Gly
20 25 30

Glu Arg Asn Gln Glu Gln Gly Ala
35 40

<210> 42
<211> 40
<212> PRT
<213> artificial sequence

<220>

<223> Amino acid sequence for GHRH sequence TV-GHRH

<400> 42

Tyr Val Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Ala Gln
1 5 10 15

Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Leu Asn Arg Gln Gln Gly
20 25 30

Glu Arg Asn Gln Glu Gln Gly Ala
35 40

<210> 43
<211> 40
<212> PRT
<213> artificial sequence

<220>
<223> Amino acid sequence for GHRH sequence 15/27/28-GHRH

<400> 43

Tyr Ala Asp Ala Ile Phe Thr Asn Ser Tyr Arg Lys Val Leu Ala Gln
1 5 10 15

Leu Ser Ala Arg Lys Leu Leu Gln Asp Ile Leu Asn Arg Gln Gln Gly
20 25 30

Glu Arg Asn Gln Glu Gln Gly Ala
35 40